

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1.-3. (Cancelled)

4. (Previously Presented) A data transmission method used in a radio system comprising a subscriber terminal and at least one base station which transmits signals to the subscriber terminal by means of its antenna, the method comprising:

determining the quality of signals received by the subscriber terminal by comparing the received signals with at least one signal quality threshold level,

sending to the base station, which transmitted a signal that exceeded the threshold, information on the antennas which transmitted the signal that exceeded the threshold, or information on transmission directions from which the signal that exceeded the threshold were received, and

selecting from the antennas, which transmitted the signal that exceeded the threshold, an antenna or antennas to continue transmission of the signal to said subscriber terminal, or selecting from the transmission directions, from which the signal that exceeded the threshold were received, a transmission direction or directions, in which to continue transmission of the signal to said subscriber terminal,

wherein the signals transmitted by the base stations are amplified by amplifiers, and the antenna which is connected to one of the amplifiers with the lowest load is selected as the transmission antenna.

5. (Previously Presented) A data transmission method used in a radio system comprising a subscriber terminal and at least one base station which transmits signals to the subscriber terminal by means of its antenna, the method comprising:

determining the quality of signals received by the subscriber terminal by comparing the received signals with at least one signal quality threshold level,

sending to the base station, which transmitted a signal that exceeded the threshold, information on the antennas which transmitted the signal that exceeded the threshold, or

information on transmission directions from which the signal that exceeded the threshold were received, and

selecting from the antennas, which transmitted the signal that exceeded the threshold, an antenna or antennas to continue transmission of the signal to said subscriber terminal, or selecting from the transmission directions, from which the signal that exceeded the threshold were received, a transmission direction or directions, in which to continue transmission of the signal to said subscriber terminal,

wherein the signals transmitted by the base stations are amplified by amplifiers before transmission, and the selection decision is made on the basis of the load situation of the amplifiers.

6.-13. (Cancelled)

14. (Previously Presented) A radio system comprising at least one subscriber terminal and at least one base station comprising an antenna by means of which the base station transmits signals to the subscriber terminal, wherein

the subscriber terminal comprises a measuring means which determines the quality of signals received by the subscriber terminal by comparing the received signals with at least one signal quality threshold level,

the subscriber terminal sends to the base station, which transmitted a signal that exceeded the threshold, information on the antennas by which the signal that exceeded the threshold were transmitted, or information on transmission directions from which the signal that exceeded the threshold were received,

the base station comprises a means which selects from the antennas, which transmitted the signal that exceeded the threshold, an antenna or antennas to continue to transmit the signal to said subscriber terminal, or the means selects from the transmission directions of the signal, which exceeded the threshold, a transmission direction or directions in which the base station continues to transmit the signal, and

wherein the base station comprises amplifiers which amplify the signals before their transmission, and the means selects as the transmission antenna of the base station the antenna or antennas which are connected to the amplifier with the smallest load.

15. (Previously Presented) A radio system comprising at least one subscriber terminal and at least one base station comprising an antenna by means of which the base station transmits signals to the subscriber terminal, wherein

the subscriber terminal comprises a measuring means which determines the quality of signals received by the subscriber terminal by comparing the received signals with at least one signal quality threshold level,

the subscriber terminal sends to the base station, which transmitted a signal that exceeded the threshold, information on the antennas by which the signal that exceeded the threshold were transmitted, or information on transmission directions from which the signal that exceeded the threshold were received,

the base station comprises a means which selects from the antennas, which transmitted the signal that exceeded the threshold, an antenna or antennas to continue to transmit the signal to said subscriber terminal, or the means selects from the transmission directions of the signal, which exceeded the threshold, a transmission direction or directions in which the base station continues to transmit the signal, and

wherein the base station comprises amplifiers which amplify the signals before their transmission, and the means makes the selection decision on the basis of the load situation of the amplifiers.

16.-21. (Cancelled)

22. (Previously Presented) A base station comprising:

means for receiving information from a subscriber terminal on antennas which transmitted a signal that exceeded at least one signal quality threshold level;

means for selecting from the antennas, an antenna or antennas to continue to transmit the signal to the subscriber terminal, or from transmission directions of the signal, which exceeded the threshold, a transmission direction or directions in which the base station continues to transmit the signal; and

means for amplifying the signals before their transmission,

wherein the means for selecting selects, as a transmission antenna of the base station, the antenna or antennas which are connected to the amplifying means with the smallest load.

23. (Previously Presented) A base station comprising:  
means for receiving information from a subscriber terminal on antennas that transmitted a signal that exceeded at least one signal quality threshold level;  
means for selecting, from the antennas, an antenna or antennas to continue to transmit the signal to the subscriber terminal, or from transmission directions of the signal, which exceed the threshold, a transmission direction or directions in which the base station continues to transmit the signal; and  
means for amplifying the signals before their transmission,  
wherein the means for selecting bases selection on a load situation of the amplifying means.

24. (Cancelled)

25. (Previously Presented) A base station comprising:  
a receiver configured to receive information from a subscriber terminal on antennas which transmit a signal that exceeds at least one signal quality threshold level;  
a controller configured to select from the antennas, an antenna or antennas to continue to transmit the signal to the subscriber terminal, or from transmission directions of the signal, which exceed the threshold, a transmission direction or directions in which the base station continues to transmit the signal; and  
at least one amplifier configured to amplify the signals before their transmission,  
wherein the controller is configured to select, as a transmission antenna of the base station, the antenna or antennas which are connected to the at least one amplifier with the smallest load.

26. (Previously Presented) A base station comprising:  
a receiver configured to receive information from a subscriber terminal on antennas that transmit a signal that exceeds at least one signal quality threshold level;  
a controller configured to select, from the antennas, an antenna or antennas to continue to transmit the signal to the subscriber terminal, or from transmission directions of the signal, which exceed the threshold, a transmission direction or directions in which the base station continues to transmit the signal; and  
at least one amplifier configured to amplify the signals before their transmission,

wherein the controller is configured to select based on a load situation of the at least one amplifier.